What is claimed is:

1   1.   A method for programming at least a portion of a multiplexed vehicle network,

2   comprising:

3   receiving user input via an intuitive graphical user interface;

4   identifying the layout of a vehicle network based on the user input;

5   defining logical relationships between components of the vehicle network based on the

6   user input;

7   compiling network data based on the layout and logical relationships; and

8   storing the compiled data.

1   2.   A method according to claim 1 wherein the step of identifying the layout of the

2   vehicle network includes identifying a vehicle network type.

    3.   A method according to claim 2 wherein the step of compiling is based on the

vehicle network type.

1   4.   A method according to claim 1 wherein the step of identifying the layout of the

2   vehicle network includes identifying a network node.

1   5.   A method according to claim 4 wherein the step of identifying the layout of the

2   vehicle network further includes identifying a component to provide input to the network node.

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1   6.   A method according to claim 4 wherein the step of identifying the layout of the

2 vehicle network further includes identifying a component to receive output from the network

3 node.

1   7.   A method according to claim 1 wherein the step of defining logical relationships

2 includes:

3   identifying a command;

4   selecting an input; and

5   assigning the command to the input.

1   8.   A method according to claim 1 wherein the step of defining logical relationships

2 includes:

3   identifying a first command;

4   selecting an output; and

5   assigning the first command to the output.

1   9.   A method according to claim 8 wherein the step of defining logical relationships

2 further includes:

3   identifying a second command;

4   identifying a relationship between the first and second commands; and

5   assigning the second command and the relationship to the output.

1   10.   A method according to claim 1 further including the step transmitting at least a

2   portion of the stored data and instructions to the vehicle network controller.

1   11.   An apparatus for programming at least a portion of a multiplexed vehicle network,

2   comprising:

3   means for receiving user input via an intuitive graphical user interface;

4   means for identifying the layout of a vehicle network based on the user input;

5   means for defining logical relationships between components of the vehicle network

6   based on the user input;

7   means for compiling network data based on the layout and logical relationships; and

8   means for storing the compiled data.

12.   An apparatus according to claim 11 wherein the means for identifying the layout

of the vehicle network identifies a vehicle network type.

13.   An apparatus according to claim 12 wherein the means for compiling operates

based on the vehicle network type.

1   14.   An apparatus according to claim 11 wherein the means for identifying the layout

2   of the vehicle network identifies a network node.

1   15.   An apparatus according to claim 14 wherein the means for identifying the layout

2   of the vehicle network further identifies a component to provide input to the network node.

1   16.   An apparatus according to claim 14 wherein the step of identifying the layout of

2   the vehicle network further identifies a component to receive output from the network node.

1   17.   An apparatus according to claim 11 wherein the means for defining logical

2   relationships includes:

3   means for identifying a command;

4   means for selecting an input; and

5   means for assigning the command to the input.

1   18.   An apparatus according to claim 11 wherein the means for defining logical

2   relationships includes:

3   means for identifying a first command;

4   means for selecting an output; and

5   means for assigning the first command to the output.

1   19.   An apparatus according to claim 18 wherein the means for defining logical

2   relationships further includes:

3   means for identifying a second command;

4   means for identifying a relationship between the first and second commands; and

5   means for assigning the second command and the relationship to the output.

1   20.   An apparatus according to claim 11 further including means for transmitting at

2   least a portion of the stored data and instructions to the vehicle network controller.

1   21.   An apparatus for programming at least a portion of a multiplexed vehicle network,

2   the apparatus comprising:

3   a processor;

4   a memory connected to said processor storing a program to control the operation of said

5   processor;

6   the processor operative with the program in the memory to:

7   receive user input via an intuitive graphical user interface;

8   identify the layout of a vehicle network based on the user input;

9   define logical relationships between components of the vehicle network based on

10   the user input;

11   compile network data based on the layout and logical relationships; and

12   store the compiled data.

13   22.   An apparatus according to claim 21, wherein the processor is further operative

2   with the program in the memory to identify a vehicle network type.

1   23.   An apparatus according to claim 22, wherein the step of compiling is based on the

2   vehicle network type.

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1   24.   An apparatus according to claim 21, wherein the processor is further operative

2   with the program in the memory to identify a network node.

1   25.   An apparatus according to claim 24, wherein the processor is further operative

2   with the program in the memory to identify a component to provide input to the network node.

1   26.   An apparatus according to claim 24, wherein the processor is further operative

2   with the program in the memory to identify a component to receive output from the network

3   node.

1   27.   An apparatus according to claim 21, wherein the processor is further operative

2   with the program in the memory to:

3   identify a command;

4   select an input; and

5   assign the command to the input.

1   28.   An apparatus according to claim 21, wherein the processor is further operative

2   with the program in the memory to:

3   identify a first command;

4   select an output; and

5   assign the first command to the output.

1   29.   An apparatus according to claim 28, wherein the processor is further operative

2   with the program in the memory to:

3   identify a second command;

4   identify a relationship between the first command and the second command; and

5   assign the second command and the relationship to the output.

1   30.   An apparatus according to claim 21, wherein the processor is further operative

2 with the program in the memory to transmit at least a portion of the stored data and instructions

3 to the vehicle network controller.

1   31.   A computer-readable storage medium encoded with processing instructions for

2   implementing method for programming at least a portion of a multiplexed vehicle network, the

3   processing instructions for directing a computer to perform the steps of:

4   receiving user input via an intuitive graphical user interface;

5   identifying the layout of a vehicle network based on the user input;

6   defining logical relationships between components of the vehicle network based on the

7   user input;

8   compiling network data based on the layout and logical relationships; and

9   storing the compiled data.